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THE  
FOURTEENTH ANNUAL REPORT  
OF THE  
BOARD OF DIRECTORS  
OF THE  
ZOOLOGICAL SOCIETY  
OF PHILADELPHIA.

(Incorporated March 21st, 1859.)

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READ AT THE ANNUAL MEETING OF THE MEMBERS AND LOAN-  
HOLDERS OF THE SOCIETY.

APRIL 22D, 1886.

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PHILADELPHIA :  
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1886.



THE  
ZOOLOGICAL SOCIETY OF PHILADELPHIA.

OFFICE, FAIRMOUNT PARK.

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OFFICERS FOR THE YEAR ENDING APRIL 21st, 1887.

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PRESIDENT,  
FREDERIC GRAFF.

VICE-PRESIDENTS:  
GEORGE W. CHILDS, | HENRY LEWIS.

SECRETARY,  
THOMAS HOCKLEY.

TREASURER,  
WILLIAM HACKER.

DIRECTORS:

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JOHN WAGNER,	PROF. JOSEPH LEIDY,
WILLIAM H. MERRICK,	FRANCIS T. FASSITT,
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ACTUARY,  
CHARLES L. JEFFERSON.

SUPERINTENDENT OF THE GARDEN,  
ARTHUR E. BROWN.

SOLICITORS:  
SAMUEL WAGNER, | WM. W. MONTGOMERY.



# REPORT

## OF THE

# BOARD OF DIRECTORS.

PHILADELPHIA, April 22d, 1886.

THE Board of Directors of the Zoological Society of Philadelphia, submit to the members and loan-certificate holders this, their Fourteenth Annual Report of the business and operations of the Society from 1st of March, 1885, to 1st of March, 1886.

### MEMBERS.

The number of members on the 1st of March, 1886, was—

Annual members, . . . . .	163
Life members, . . . . .	181
Corresponding members, . . . . .	8
Honorary members, . . . . .	14

Total members (exclusive of loan-holders), . . 366

The total number of loan-holders is 458, holding \$319,900 loan.

This apparently large falling off of membership from last year is due to the fact that for some years many members have been in arrears of dues. After an energetic effort had been made to collect these dues, it was decided to strike from the list the names of all those who were not entitled to membership.

At a meeting of the Board of Directors, held on October 22d of last year, it was decided to call a special meeting on

the 5th of the following November at the Board of Trade rooms and lay before the public the critical financial condition of the Society. A large attendance of citizens at this meeting showed the great interest taken in the subject. A committee was appointed who at once made efforts to raise funds for the present and future support of the Garden. Subscriptions amounting to \$22,000 were thus secured.

The Board desire to publicly express their thanks to the gentlemen composing the "Citizens' Committee of Ways and Means" for their earnest efforts made in soliciting the necessary funds for the maintenance and support of the Zoological Garden; to the editors and proprietors of the press, in exciting the interest of the public, and to the citizens of Philadelphia for their liberal response to the appeal of the committee.

In expressing these thanks it is yet necessary to remember that nothing but a large endowment fund will insure the permanency of the Garden.

It is earnestly hoped that such a fund will be raised. Until then the existence of the Society will be always uncertain and sometimes precarious. At the present time it is very important that the membership should be increased. The Directors appeal to the present members to make individual exertions in this direction and thus materially increase the revenue of the Society.

The following is a report, in detail, of the gate receipts for the year:—

Adults (paying twenty-five cents at gates), . . . . .	94,567
Children (paying ten cents at gates), . . . . .	26,566
Members (including Life and Annual Members, loan-holders' annual, and complimentary annual tickets), . . . . .	2,601
Loan-holders' single tickets, . . . . .	28,447
Free admissions (charitable institutions, donors' tickets, &c.), . . . . .	2,414
Coupon tickets, . . . . .	3,210
Excursion tickets, . . . . .	8,034

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165,839

*Monthly Record of Visitors for 1885-86, with corresponding account for 1884-85.*

MONTH.	1884-85.	1885-86.	COMPARISON.
March, . . . .	5,474	2,917	Decrease, . 2,557
April, . . . .	11,381	8,902	" . 2,479
May, . . . .	20,514	16,436	" . 4,078
June, . . . .	23,803	19,450	" . 4,353
July, . . . .	30,088	22,815	" . 7,273
August, . . . .	35,783	29,065	" . 6,718
September, . .	32,731	28,237	" . 4,494
October, . . .	18,716	17,686	" . 1,030
November, . .	9,111	8,348	" . 763
December, . .	4,054	5,014	Increase, . 960
January, . . .	3,102	3,484	" . 382
February, . . .	1,997	3,485	" . 1,488
	196,754	165,839	Decrease, . 30,915

Average daily admissions, . . . . . 454

The greatest number of visitors on any one day was

on Saturday, July 4th, . . . . . 5,846

*Monthly Record of Receipts from Admissions for 1885-86, with corresponding account for 1884-85.*

MONTH.	1884-85.	1885-86.	COMPARISON.
March, . .	\$1,040 23	\$542 84	Decrease, . \$497 39
April, . . .	2,003 47	1,646 07	" . 357 40
May, . . .	3,512 88	2,786 84	" . 726 04
June, . . .	3,989 50	3,124 55	" . 864 95
July, . . .	5,138 97	3,980 65	" . 1,158 32
August, . .	6,134 44	4,662 14	" . 1,472 30
September, .	6,180 36	4,713 86	" . 1,466 50
October, . .	3,485 00	2,964 04	" . 520 96
November, .	1,661 44	1,592 70	" . 68 74
December, .	761 99	974 57	Increase, . 212 58
January, . .	572 67	669 06	" . 96 39
February, .	380 39	662 67	" . 282 28
	\$34,861 34	\$28,319 99	Decrease, \$6,541 35

Average daily receipts from admissions, . . . . . \$77.60  
 The largest amount of receipts at the gates on any  
 one day was on Saturday, July 4th, . . . . . \$1,104.73

*Total Receipts on the several days of the week, and their respective averages, for 1885-86.*

RANK.	DAYS.	TOTAL RECEIPTS.	AVERAGE.
1	Sunday, . . . . .	\$11,290 27	\$213 02
2	Saturday, . . . . .	4,541 93	87 34
3	Thursday, . . . . .	2,800 68	53 86
4	Friday, . . . . .	2,702 12	51 96
5	Wednesday, . . . . .	2,490 59	47 90
6	Monday, . . . . .	2,333 89	44 88
7	Tuesday, . . . . .	2,160 51	41 55
		\$28,319 99	

The financial condition of the Society is fully shown in the Treasurer's statement, Appendix A, and the report of the General Superintendent, Appendix B, shows the present condition of the menagerie and the details attending the operation of the Garden during the year.

The Board desires to express its thanks for the many donations of animals which have been received.

By order of the Board,

THOMAS HOCKLEY,  
*Secretary.*

# INCOME AND EXPENDITURES.

For the fiscal year ending March 1st, 1886.

## INCOME.

Members' initiation fees and dues, . . . . .	\$880 00	
Admission receipts, . . . . .	28,319 99	
Rents at Garden, . . . . .	1,200 00	
Sundry receipts, . . . . .	688 17	
Sale of Guides, . . . . .	167 70	
	<u>          </u>	\$31,255 86

## EXPENDITURES.

(Exclusive of Permanent Improvements, &c.)

Salaries and wages, . . . . .	\$17,119 31	
Office expenses, . . . . .	169 15	
General expenses, . . . . .	15,703 07	
	<u>          </u>	\$32,991 53
Estimated loss on animals, . . . . .	5,299 20	
	<u>          </u>	\$38,290 73
Balance to debit of profit and loss for year, .	7,034 87	
	<u>          </u>	\$31,255 86

# CAPITAL.

Receipts and Expenditures for the year ending March 1st, 1886.

## RECEIPTS.

Life membership, . . . . .	\$650 00	
Sales of animals, . . . . .	171 00	
Permanent fund, . . . . .	200 00	
Add the following amount charged to profit and loss for estimated loss on animals, . . . . .	5,299 20	
	<u>          </u>	\$6,320 20

## EXPENDITURES.

Permanent improvements and animals as per items in Treasurer's statement (Appendix A),	\$1,559 87	
Balance (being excess of investments over re- ceipts of capital, and provided from Profit and Loss), . . . . .	4,760 33	
	<u>          </u>	\$6,320 20

# APPENDIX A.

## TREASURER'S STATEMENT.

From March 1st, 1885, to March 1st, 1886.

Dr.		
To Balance, March 1st, 1885, . . . . .		\$648 42
" Sales of animals, . . . . .		171 00
" Life memberships, . . . . .		650 00
" Permanent fund, . . . . .		200 00
" Members' fees and dues, . . . . .	\$880 00	
" Admission receipts, . . . . .	28,319 99	
" Rents at Garden, . . . . .	1,200 00	
" Sale of Guide books, . . . . .	167 70	
" Sundry receipts, . . . . .	688 17	
" Citizen's relief fund, . . . . .	16,375 00	
		<hr/>
Transferred to credit of profit and loss, . . . . .		47,630 86
		<hr/>
		\$49,300 28

Cr.		
By warrants paid for—		
Salaries and wages, . . . . .	\$17,119 31	
Office expenses, . . . . .	169 15	
Subsistence, . . . . .	8,401 85	
Advertising, . . . . .	2,060 63	
Insurance, . . . . .	249 20	
Fuel and lights, . . . . .	1,510 20	
Printing, . . . . .	224 50	
Expressage, . . . . .	130 12	
Repairs, . . . . .	678 52	
Extra labor and jobbing, . . . . .	817 95	
Water rent, . . . . .	1,000 00	
Hardware, . . . . .	63 06	
Lumber, . . . . .	113 09	
Interest and discount, . . . . .	85 00	
Sundry expenses, . . . . .	368 95	
		<hr/>
Transferred to debit of profit and loss, . . . . .		\$32,991 53
Purchase of animals, . . . . .	\$1,330 20	
Horticulture, . . . . .	229 67	
		<hr/>
		1,559 87
Balance on hand, March 1st, 1886, . . . . .		14,748 88
		<hr/>
		\$49,300 28

WILLIAM HACKER, *Treasurer.*

Examined and found correct.

COMMITTEE ON AUDIT,

F. T. FASSITT, *Chairman.*

## BALANCE SHEET.

Dr.

*Zoological Society, March 1st, 1886.*

Cr.

Cash, . . . . .	\$14,748 88	Loan, . . . . .	\$319,900 00
Water supply and drains, . . . . .	11,583 37	Donations, . . . . .	11,855 74
Animal account, . . . . .	45,352 00	Life membership, . . . . .	9,685 00
Aviaries, . . . . .	9,744 19	Permanent fund, . . . . .	2,325 00
Bear pits, . . . . .	6,966 82	Profit and loss, . . . . .	94,694 93
Monkey house, . . . . .	7,926 80		
Cages, . . . . .	4,712 38		
Fencing, . . . . .	5,323 75		
Vulcanite walks, . . . . .	36,739 01		
Deer parks and enclosures, . . . . .	5,322 31		
Prairie-dog village, . . . . .	890 64		
Gate houses, . . . . .	11,705 21		
Buffalo house, . . . . .	1,494 15		
Horticulture, . . . . .	7,532 42		
Walks, roads, and grading, . . . . .	71,938 37		
Houses for sundry animals, . . . . .	6,869 16		
Lake, . . . . .	10,447 50		
Carnivora house, . . . . .	55,638 48		
Green houses, . . . . .	4,622 47		
Barn, . . . . .	3,557 12		
Elephant house, . . . . .	40,672 08		
Seal ponds, . . . . .	4,999 73		
Carriage sheds, . . . . .	3,874 86		
Restaurant, . . . . .	14,341 96		
Settees and chairs, . . . . .	2,124 00		
Photograph stand, . . . . .	699 20		
New aviary, . . . . .	12,525 75		
Deer house, . . . . .	20,624 71		
Reptile house, . . . . .	1,659 00		
Camel house, . . . . .	886 82		
Music stand, . . . . .	1,583 65		
Permanent enclosure, . . . . .	9,150 84		
Yard and store room, . . . . .	2,203 04		
	<u>\$438,460 67</u>		<u>\$438,460 67</u>

## APPENDIX B.

*To the Board of Directors of the Zoological Society,*

GENTLEMEN:—I have the honor to submit to you my report for the year ending on the twenty-eighth of February, 1886.

On that date the animals forming the collection were in number and value, as follows:—

262 Mammals, . . . . .	\$39,489
408 Birds, . . . . .	5,730
40 Reptiles, . . . . .	133
<hr/> 710	<hr/> \$45,352

The accessions from all sources, during the year, were three hundred and fifteen in number, and were of the following classes:—

### MAMMALS :—

Presented, . . . . .	51
Purchased, . . . . .	42
Born, . . . . .	29
	— 122

### BIRDS :—

Presented, . . . . .	63
Purchased, . . . . .	44
Born, . . . . .	14
	— 121

### REPTILES :—

Presented, . . . . .	63
Purchased, . . . . .	9
	— 72
	<hr/> 315

Owing to the double fact that the amount of money available for purchase of animals has been less than formerly, and that the supplies of animals brought to this country for sale have also been unusually small, the additions of interesting specimens to the Garden have hardly reached the limits of former years. Still, in connection with the comparatively small number of deaths which have occurred, they have been sufficient to fully maintain the completeness of the collection, and among them were contained some specimens of great rarity.

The following were exhibited for the first time in our Garden :

1. The mitred monkey (*Semnopithecus mitratus*), a rare and interesting species from western Java.

2. The black howler (*Myctes niger*), from southern Brazil and Paraguay.

3. Hairy-nosed wombat (*Phascolomys latifrons*). A pair of these animals, purchased in September, were a most welcome addition to the collection, as it had previously contained specimens of the two other species forming this group. They are among the most remarkable of the varied and strange marsupial forms and bear certain resemblances to the type of dentition characteristic of rodents. Externally, they are about the size and proportions of the common badger, whose mode of life they seem also to imitate, burrowing deeply into the ground for their habitations. Their chief food, however, is of a vegetable nature, though the pair in the Garden occasionally consume small quantities of meat. Like many members of the Australian fauna, these animals are rapidly disappearing before the advance of civilization, and the Society may be deemed fortunate in procuring the present specimens.

4. The European, or Bohemian wax-wing (*Ampelis garrulus*), a bird very similar in appearance to the cedar-bird of our country, to which it is closely related. Though a resident of Europe, it not infrequently crosses the ocean to the northern parts of this continent—occasionally even appearing in large flocks.

5. The common bunting (*Emberiza miliaria*), of Europe, a

bird which nearly resembles the ortolan—rival, among table delicacies of the old world, to the famous redbird of American shores.

6. The larger hill mynah (*Gracula intermedia*), of northern India, one of the most attractive of a group of birds which are in demand in Europe from the faculty which they possess, in common with parrots and starlings, of learning to imitate many sounds of the human voice.

7. The festive amazon (*Chrysotis festiva*), one of the many South American parrots.

8. The red-shouldered parrakeet (*Palacornis eupatrius*), a beautiful species from India.

9. One of the rarest additions ever made to the collection was a specimen of Whitney's owl (*Micrathene whitneyi*). This miniature of the larger species of the group is hardly larger than a well-fattened English sparrow. It is, in fact, the smallest of known owls, and being an extremely scarce bird is looked upon with much interest by ornithologists. The limits of its range are not fully known, the few specimens which have been collected, coming from Arizona and the adjoining province of Sonora. A pair of them were captured near Tucson, by Mr. Herbert Brown of that city, who kindly presented them to the Society. One of the pair unfortunately died during the long journey, and the other lived only a few weeks after arrival.

10. Through the kindness of Prof. Baird, of the Smithsonian Institution, the Society has been able to exhibit one of those rare prizes which have but seldom fallen to its lot, in a tooth-billed pigeon (*Didunculus strigirostris*). This bird was brought from the Samoan Islands—its native region—by the late Dr. Canisius, U. S. Consul at that point, and was by him presented to the U. S. National Museum, and subsequently, with his consent, deposited in the Garden, where it has done exceedingly well. Aside from its curious appearance and habits, a special interest is attached to the species, from the relationship which it alone, of existing birds, bears to the strange and almost anomalous pigeon-like Dodo, which formerly inhabited the islands of Mauritius and Bourbon, but which is believed to have become

extinct within the last two hundred years, and of which no remains now exist except a few bones and feathers in museum collections, and a few badly executed drawings in the published works of early explorers.

11. A specimen of eagle from South America, in such a poor state of plumage as to render its present identification difficult, but which appears to be the crowned harpy eagle (*Harpyhaliaetus coronatus*).

12. A pair of rufous-vented guans (*Penelope cristata*), from Central America.

13. A pair of Gambel's quail (*Lophortyx gambeli*), from the south-western portions of the United States.

It was hoped that these beautiful birds would breed and become domesticated in the Garden, but the female unfortunately died just at the beginning of the breeding season. Arrangements have been made to procure several more pairs during the coming spring, when better success is hoped for.

14. The first specimen which the Garden has ever contained of the beautiful king rail (*Rallus elegans*), of our own country, was presented by the well-known naturalist and sportsman, Mr. John Krider.

15. Two Egyptian geese (*Chenalopex ægyptiaca*).

16. A young Leach's petrel (*Cymochorea leucorrhœa*), of the North Atlantic ocean.

17. Two lizards were received from New York and appear to be specimens of the Bengalese varan (*Varanus bengalensis*), from northern India.

18. A painted box tortoise (*Cistudo ornata*), from the south-western United States, was received from the Smithsonian Institution.

19. The yellow-headed conure (*Conurus jendaya*), from Brazil.

The following animals were bred in the Garden:—

3 Lions (*Felis leo*).

4 Prairie Wolves (*Canis latrans*).

3 Hybrids between *Canis latrans* ♀ and a male dog, said to be a Scotch colley.

- 5 Dingos (*Canis dingo*).
- 2 Beaver (*Castor fiber canadensis*).
- 2 Fallow Deer (*Cervus dama*).
- 1 Common Deer (*Cariacus virginianus*).
- 2 Hybrids between *C. toltecus* ♂ and *C. virginianus* ♀ (from Mexico).
- 1 Naked-eared Deer (*Cariacus gymnotis*).
- 2 Zebus (*Bos indicus*).
- 3 Bison (*Bison americanus*).
- 1 Oryx Antelope (*Oryx leucoryx*).
- 1 Bactrian Camel (*Camelus bactrianus*).
- 1 Carolina Parakeet (*Conurus carolinensis*).
- 2 Turtle Doves (*Turtur risorius*).
- 11 Mallard Ducks (*Anas boschas*).

Hopes were entertained during the summer, of the breeding of the Australian crane, as a pair of these birds sat, alternately, upon one egg for six weeks, on the island in the lake, but at the end of that time the egg failed to hatch and was broken by the birds:

The losses by death have been in value a little below the average of former years, but have been much less in number, as nearly half the pecuniary loss was made up by the death of the last of the Society's giraffes, a fine male, which had been in the Garden nearly eleven years. This loss was especially unfortunate, as a difficulty in procuring animals from central Africa, which now exists, makes it impossible to fill at once the only gap of consequence in the display of representative forms.

The last of the pair of polar bears, purchased in 1876, also died during the year. He received a severe shock from lightning during the summer of 1879, and for some time his hinder extremities were almost wholly paralyzed. From this he recovered temporarily, but the affection constantly returned, and at last resulted fatally. These animals will be replaced as soon as a proper opportunity is offered.

The fine male tiger, "Jim," who had long passed the average age reached by these animals in captivity, also died during the winter. A younger male, said to be a remark-

ably fine specimen, has been purchased to mate the female now in the collection, but has not yet reached the Garden.

In replacing the old animals which die from time to time, great care is exercised to procure only young and perfect specimens, even in cases when it is necessary to wait for some time before such can be procured. This policy, rigorously carried out, has been productive of excellent results, as there are to-day few animals in the collection which are unworthy representatives of their kind. In the larger carnivora, especially, it is believed that a series of more perfect individuals of all the well-known species cannot be found in any zoological collection existing.

The hippopotamus, purchased in the spring of 1884, continues to thrive and gains rapidly in size. It has proved to be one of the most attractive animals in the Garden.

The aviary contains more than its usual number and variety of inmates, the series of parrots especially being more attractive than ever before.

It is frequently suggested, and is indeed desirable, that in an American garden the collection of North American forms should be as complete as possible, but the difficulties are such as seem to be almost impossible to overcome except in the cases of our most common species. The greater proportion of our largest and most interesting animals are now found only in the far north, or west of the Mississippi river. There is in this country no organized capture of wild animals for purposes of exhibition, such as those from which African and Asiatic specimens are drawn, and the chances of purchase are therefore wholly accidental, and even when occurring, the great expense of transportation to a shipping point and the heavy express charges, with the risk consequent on neglect or improper care during transit, shut off all but the few cases from favorable localities.

It appears, further, that the lack of some nutritive elements which have hitherto eluded detection proves speedily fatal to nearly all the herbivorous animals from the far west, the elk and the bison being the only exceptions among those whose domestication has been attempted in the east. In both of these cases it is interesting to observe

that the former range of the animals extended nearly, if not quite, to the Atlantic coast. These exceptions are perhaps the most fortunate which could occur, as, aside from their being the finest of our native animals, they have both so nearly reached extinction that a few more years of neglect of proper legislative protection will leave few of either species outside the limits of zoological gardens and private parks. Our Garden contains fine and increasing herds of each.

An attempt was made during the past summer to procure a specimen of Rocky Mountain goat, the inaccessible nature of whose haunts has made their capture so difficult that no living specimen has ever been exhibited to the public, but the attempt was not successful.

Probably the greatest want of the Garden to-day is a collection of reptiles, as complete and as well displayed as so interesting a branch of zoology should merit. The few specimens which have been procured of late years have been placed in the old aviary, which, without large alteration, can supply none of the requisites of proper care, and until increased receipts at the Garden, or the liberality of private donation can supply the few thousand dollars necessary for that purpose, it has not been felt worth while to collect together animals which, after procuring, it would not be possible to keep alive. There is hardly a class of animals so interesting to visitors as these, and the day when the proper arrangements can be made for a reptile house worthy of the Garden, will be eagerly welcomed.

The reduced receipts of the year made necessary an even more stringent economy than that hitherto practiced, and by the intelligent co-operation of all subordinate employés, the expenses were reduced some three thousand dollars. It is proper to say, however, that some of the means employed cannot be permanently continued and at the same time the Garden be kept in the attractive condition which has always been aimed at.

Respectfully,

ARTHUR ERWIN BROWN.

ZOOLOGICAL GARDEN, March 1st, 1886.

*Genl. Supt.*



